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CURRENT SERIAL RECORDS



MARKETING AND INSPECTION of grain will become more effective and more efficient as the result of several provisions of the regulations under the U.S. Grain Standards Act taking effect this month. For the first time, the U.S. Department of Agriculture's Consumer and Marketing Service may license employees of grain elevators and warehouses to draw official samples of grain. These samples, in turn, may be submitted to a grain inspection agency for official inspection.

Until now, the official sampling of grain at grain elevators or warehouses has been done only by employees of official inspection agencies. Many times this meant hiring additional employees, or requiring extensive travel on the part of regular employees, which resulted in costly delays for both buyers and sellers of grain. If the warehouseman chose to draw his own sample for submission to an agency for inspection, the "Submitted Sample Inspection" certificate issued could not officially be used to represent the grain from which the sample was taken. These certificates, therefore, have had limited acceptance in grain trading and have not satisfied the needs of the trade in many instances.

It is expected that the new "Warehouseman's Sample-Lot Inspection" certificates will receive wider acceptance by the trade than the "Submitted Sample Inspection" certificates because:

- Only qualified elevator employees will be licensed.

- Samples for this type of inspection will now be taken only by approved mechanical sampling equipment or by approved sampling equipment giving equivalent results. (Grain probes do not give equivalent results and will not be approved sampling equipment for this type of inspection).

- Licensed warehouse samplers will be subject to the requirements and prohibitions of the Grain Standards Act.

- The licensed samplers will be supervised by USDA.



Grain Inspection Gains More Efficiency

By Leslie E. Malone

- The licensed samplers will be re-examined periodically.

Another provision of the regulations under the U.S. Grain Standards Act being implemented this month provides for standard-form grain inspection certificates. Four standard-form domestic grain inspection certificates and one standard-form export grain inspection certificate will now be used throughout the country. Each of the forms will represent a different kind of inspection and each will be uniform as to color, size, shape, and format. Previously, official inspection agencies throughout the country used certificates of their own choice as to color, size, and shape.

The new certificates will be color coded to identify whether the inspection was based on an official sample obtained by a licensed sampler employed by an official inspection agency (white certificate); an official sample obtained by a licensed employee of an elevator or warehouse (yellow certificate); or an un-

official sample obtained by (or for) the applicant (pink certificate). Whether an applicant receives a white, yellow, or pink certificate depends on the kind of inspection he requests.

These are the five inspection certificates which will now be used:

- Export certificate—will be used for grain officially inspected for export. The grain will be sampled and inspected in the United States by licensed employees of official inspection agencies. The certificate will be *white*.

- Official Sample-Lot Inspection certificate—will be used for officially inspected grain in domestic commerce. The grain will be sampled and inspected by licensed employees of official inspection agencies. The certificate will be *white*.

- Warehouseman's Sample-Lot Inspection certificate—will be used for officially inspected grain in domestic commerce. The grain will be sampled by licensed samplers employed by grain elevators or warehouses. The samples will be submitted to an official inspection agency for inspection and certification. The certificate will be *yellow*.

- Submitted Sample Inspection certificate—will be used for officially inspected grain in domestic commerce. The grain will be sampled by (or for) the applicant and submitted to an official inspection agency for inspection and certification. The certificate will be *pink*.

- Official certificate—will be used by licensed employees of official inspection agencies for grain sold in export or domestic commerce when checkweighing or checkloading sacks of grain is desired, when official sampling only is desired, or when an examination of the condition of a carrier (such as a ship) for the shipment of grain is desired. The certificate will be *white*. □

The author is Head, Regulatory Section, Grain Inspection Branch, Grain Division, C&MS, USDA.

CHERRY PIE IS A favorite dessert this time of year, but how many of us know the behind-the-scenes action that insures the quality of the cherries in the pies we bake with loving care or buy with careful scrutiny?

The process for the cherries that end up in delectable desserts begins when the delicate fruit is harvested, often by machines which shake the cherries from the trees. The cherries fall onto a canvas catching frame, are elevated into tanks of cold water, and are then taken to a processing plant. Here, time is of the essence. Cherries are very delicate fruits and must be handled carefully but quickly to prevent serious damage. The most critical period in the life of a newly picked cherry is its first two hours of freedom. During this time, friction, a temperature over 60 degrees F., or pressure can cause injury which would affect appearance and quality.

To minimize the danger of damage, the cherries are usually conveyed from the orchard to the plant in tanks of very cold water. At the

plant, they are held in tanks of cold water, which must continually be tested to insure that the water remains cool enough. During this time, the cherries "relax" in the water and plump up, and any badly damaged cherries, as well as leaves and loose stems, float to the top of the tank.

After this cooling bath, the cherries start on their trip through the plant. They pass through machines where small, immature cherries and any remaining leaves and stems are removed. There may be some hand sorting for blemished cherries, but in most plants this operation is now performed by ingenious, lightning-fast machines, which pick up each cherry and move it through a bank of electronic scanning eyes which locate and remove cherries with spots or similar imperfections.

The next process is mechanical pitting. Pitting is a unique process in which rows of steel needles deftly push the pits through the cherries, with little damage to them. After the cherries are pitted, they are packed in the containers in which

they go to market.

But this isn't the end of the story for most red tart cherries. About 80 percent of the pack of frozen and canned red tart cherries is inspected for quality by the U.S. Department of Agriculture's Consumer and Marketing Service. This is a voluntary service, paid for by the user. For processors who request this service, an inspector with the C&MS Fruit and Vegetable Division is stationed in the processing plant to check on preparation, processing, and packaging operations. After processing is completed, the inspector examines the end product and certifies its quality or grade.

U.S. Grade A tart cherries are almost perfect. They are plump, bright red, firm, and virtually free from defects. Lower grade cherries are not as uniform in appearance and other characteristics as Grade A. In most years, as a result of careful handling and processing, the major portion of the entire United States tart cherry pack is U.S. Grade A quality.

The USDA certificate of quality helps processors market their product, by helping establish its value. Top quality usually brings a higher price or quicker sale.

When the cherries go out into the world, they go by two different routes. Some are canned, usually in water. A small amount is packed in cans for retail sale, either as a water pack, or as a prepared pie mix, and this product is bought by consumers for use in cherry pies. The rest of the canned pack is sold to bakeries for use in pies, turnovers, and other tempting cherry desserts.

The second route is a cold one; the cherries, usually packed with sugar, are frozen. Some few are packed in syrup for the retail trade. The major part is packed in large containers for commercial use. A portion of both the canned and frozen pack is used in preserves, jellies, and fruit drinks. □



By Edward R. Thompson

The author is assistant head, Standardization Section, Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, C&MS, USDA.

A STATISTICIAN LOOKS AT GRADING BY ATTRIBUTES

By Richard P. Bartlett, Jr.

(Part 2 of 3 Parts)

GRADING IS NOT NEW. For centuries, those who sold products of any description have "graded" these products into varying levels of quality. This grading of product might be very simple, or it might be quite complicated, but it has been felt to be an important aspect of marketing because the grade indicates the varying levels of value or price within a given product.

Grading historically has involved:

- **Size**—Such as sixpenny (2-inch) or tenpenny (3-inch) nails or "Extra Large" (27 ounces per dozen) or "Large" (24 ounces) eggs.

- **Content**—The medieval "as-sizes" of bread fixed taxation and prices based on the quality-wheat content of the bread. And modern beef "yield" grades measure the expected yield of lean meat—or retail cuts—from a carcass.

- **Appearance**—More than a century ago, cotton was graded as "Good," "Middling," etc., the same terms used now for cotton classing. Grades for poultry and many fruits and vegetables today weigh heavily on appearance factors.

- **Usability**—The grades "U.S. Prime" and "U.S. Choice" refer to the tenderness and "eatibility" of the beef or lamb graded—that is, they provide a guide as to how to use and cook the meat.

But regardless of what factor or factors are specifically being measured, the grading of products is still done much the same way as it's always been done. Someone examines the product—or a representative sample of the product—compares it with a standard sample or detailed descriptive standard, and judges the quality on how well the product matches the standard.

This is the process we call grad-

ing, a process which in the U.S. Department of Agriculture is a half-century old and is widely used and respected as vital in the marketing of agricultural products. But on an experimental basis, something new is being tried in grading.

This new approach is called "grading by attributes." It's a scientific, statistically sound way of determining if a product meets specific standards.

But to understand how the new system works, we must know how grading is now being done—and has been done for many years. So let's take a typical example—grades for frozen asparagus.

The grader—a highly trained quality specialist, usually with a college degree—looks at a representative sample of the product. As he must weigh a number of quality factors before he assigns a grade, he assigns a numerical score to each factor and then totals them to see how the product measures up.

Traditionally, frozen asparagus of the top grade (U.S. Grade A) has to have a total score of at least 85 out of a possible 100 points, and also reach a certain score on each quality factor. The scoring system is based on four quality factors: color (20 points), uniformity of length (10 points), absence of defects (30 points) and character (tenderness, texture, and maturity) (40 points).

The grader examines each quality factor and assigns a score along a spectrum from "0" for the poorest to the top score (say "20" for color) for the best. This is a highly accurate and dependable method of grading but it falls short of the optimum in at least four ways:

1. It takes time for the grader

to evaluate everything, weigh the scores, and assign a grade. (Not too much time, for graders do their work rapidly and accurately. But in this fast-paced marketing system, even a small saving in time can save money for the industry.)

2. It involves a considerable amount of subjective judgment on the part of the grader. Say the color for a sample of asparagus is not quite the "best" color for asparagus, does the grader give it a score of "17" (Grade A) or "16" (Grade B)? Only one point difference could make the difference of many dollars in value, and on a spectrum of 20 points, a difference of one point is mighty hard to distinguish.

3. It is primarily designed for stationary lot grading—where a grader looks at a sample from a lot and assigns a grade to the lot—but has been adapted to in-plant grading—where a grader examines the product as it comes down the production line and lets the plant adjust quality level during production. Since the bulk of grading has shifted to in-plant, it is desirable to have a grading system designed primarily for in-plant grading.

4. It is based on a container of product as the sample unit (or a fraction of large containers.) This requires the grader to remember special rules and make special calculations for each size of different sized container. It further has the effect of giving one a different look at quality during any given time of production—a "peek" when using small containers—a "glance" when using medium size containers—a "look" when using large containers.

Attribute grading answers all these needs. Here's how it works.

We determine statistically what

the levels of quality should be, and we establish a rapid means of determining quality level. We do away with the "scoring" system and substitute a system of looking for points in which a sample will depart from the optimum. We use a constant sample unit size regardless of size of container being packed—assuring a "look" rather than a "peek" at the production and eliminating the special rules and calculations for different sized containers. We call any factor that detracts from the value of a product, a "defect."

Then all the grader needs to do is count these defects and refer to a statistical table showing the numbers of defects allowed within each grade. The grade is automatically determined from the table.

For frozen asparagus we still use the same quality factors, of course. But instead of assigning a numerical score for color, for example, the grader counts the times that a sample departs from best color.

We go even further. Defects are rated by level of importance. A minor defect won't affect the usability of the product, but means the product is not of best quality. A major or severe defect will affect the usability. A critical defect will not only affect the usability but also might make the product unsafe or unusable.

The quality control chart identifies how many of each type of defect is allowed in each size sample for each grade.

The grading is speeded up because the grader merely counts defects. Subjectivity is minimized because the standards describe the defects and the level of defect completely. And the process is well-suited to on-line inspection in the packing plant because a running sample can be maintained by counting defects on the line itself.

The third article in this series will describe the sampling plans used in this process, what we mean by acceptable quality level (AQL), and how the statistician helps develop these sampling plans and quality control charts. □

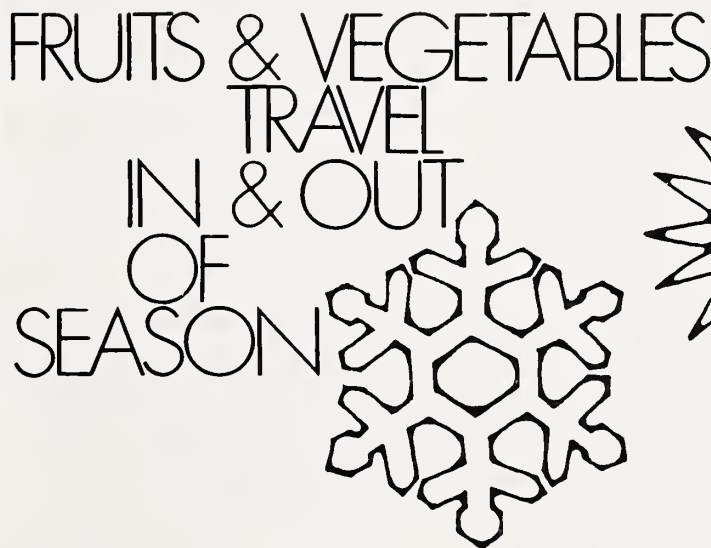
The author is Director, C&MS Statistical Staff, C&MS, USDA.

THE NEXT TIME YOU'RE stopped at a rail crossing for a freight train, you might pass the time thinking about nice juicy grapefruit, mellow pears, or crisp stalks of celery. That's what about one in 50 freight cars carries—fresh fruits and vegetables.

Trucks move the major share of fresh produce to market—an estimated 60 percent, with trains carrying about 40 percent. Trucks are generally used for short hauls and trains mostly for long hauls. Piggyback shipments, a combination of rail-highway service offered by the

lettuce, 24 heads in a carton.

Getting the right quantity of fresh fruits and vegetables to city markets at the time they want them is a complicated job for growers, shippers, wholesale buyers, and transportation agencies. Growers try to time harvests so supplies will be spread out over a period of time, and shippers try to determine which markets will give them the best price. At the same time, buyers are looking for the right quantity and quality at the best price for them. And transportation agencies must



By J. M. Saylor

rail lines are a fairly recent development. "Piggybacks" are trailers that can be moved by highway to rail lines, transported on flat cars to their destination, and then hitched to tractors for final delivery. Air shipment of fresh produce is an even newer development; it is used primarily for high-value commodities such as strawberries.

How much fresh produce moves across the country in one day? Taking last December 1st as an example, truck and rail shipments, put in terms of rail-car capacity, added up to 2,374 carlots. A carlot may consist of 55,000 pounds of potatoes, 820 boxes of apples weighing 40 to 45 pounds each, or 1,000 cartons of

have equipment ready, at the time and place it's needed, to move the supplies to market.

Information of help to all four groups is provided in daily, weekly, and annual reports of the Federal-State Market News Service. The Market News Service, administered by the U.S. Department of Agriculture's Consumer and Marketing Service in cooperation with State agencies, collects nationwide data on the number of shipments from major producing areas, the volume arriving at various wholesale markets (unloads), and on prices paid in producing areas and at wholesale markets. Data on more than 65 different commodities are reported.

Daily reports are published in producing areas and terminal markets. The information is also available by telephone recorder at a number of locations. With these reports, buyers and sellers can follow the relationship between supplies and prices and plan their marketing accordingly. The weekly nationwide summary of shipments from producing areas and unloads in wholesale markets, by commodity, is coordinated and published by the Washington, D.C. office of the C&MS Fruit and Vegetable Division. This summary provides a comparison between the current and the previous year's movement, by weeks, as well as reporting the totals to date for each year. It can be most useful to marketing and transportation agencies in planning as the season progresses.

The annual reports on shipments and unloads in 41 major cities are also useful in planning. Marketing firms can determine the potential of various markets—see what quantity of particular fruits or vegetables they can handle—and watch the trends in production and marketing. These data are also important to transportation agencies in planning what kind of equipment they will need, where, and when.

Because fresh fruits and vegetables are so perishable, most are refrigerated during transport. Hardier vegetables like potatoes and onions may need only insulated and ventilated cars or trucks. During winter, the transport vehicle must provide heat to prevent freezing.

Insulated rail cars cooled by ice made the first long-distance shipments of perishable agricultural products possible. Ice "bunker" cars are still in use, although the rail lines have been switching to mechanically refrigerated cars as the older ones are replaced.

Several methods of modifying the atmosphere in loads of fresh fruits and vegetables during transport have been used recently, usually in conjunction with refrigeration, to

help preserve fresh produce. The object of modifying the atmosphere is to reduce the oxygen content of the air and thus inhibit ripening or decay of the produce. Nitrogen has been used in railcars and trailerloads of lettuce, and carbon dioxide in air shipments of strawberries. Studies by USDA's Agricultural Research Service show that carbon dioxide reduces decay of strawberries in air shipments overseas, and that russet spotting of lettuce is less in mechanically refrigerated trailers supplemented with liquid nitrogen than in trailers with normal atmospheres.

Airlines use various types of containers, some of them shaped to the hold of the plane, to protect fresh fruits and vegetables during transport. Some of the containers are mechanically refrigerated and some have nitrogen refrigeration; dry ice, which provides both cooling and carbon dioxide, is sometimes used in containers holding strawberries.

Some of the products carried by plane last year, in addition to strawberries, were apricots, asparagus, cherries, lettuce, and peaches.

Whatever the mode of transportation, packaging fruits and vegetables properly, and stacking them correctly in the vehicle, are also important in preserving their quality during the hours or days it takes to get them to market. The load must be stable to prevent crushed boxes and damaged produce at the end of the line, and the stacking method or loading pattern must also allow air to move through the entire load to keep it properly cooled.

ARS, along with produce industry, works constantly to improve methods of packaging, loading, and cooling fresh fruits and vegetables, to bring them to you in the best possible condition. □

The author is head, Transportation Reports Section, Market News Branch, Fruit and Vegetable Division, C&MS, USDA.

FOOD TIPS

—from USDA's Consumer and Marketing Service

For a delicious, nutritious food that can be served in many ways, try *dry beans*. Some of the many kinds you can buy at the grocery store are: blackeye peas (beans) and garbanzo beans used primarily as main dishes; great northern beans, used in soups, salads, casseroles, and home baked beans; pea (navy) beans, for soups, home baked beans, and casseroles; and pinto beans, used mainly in salads and for chili. The U.S. Department of Agriculture's Consumer and Marketing Service recommends buying beans which have a bright, uniform color. Also look for beans of uniform size, since mixed sizes may result in uneven cooking. □

* * *

You can use *canned tomatoes* in soups, casseroles, salads, and many other dishes. But how do you choose them for a certain dish? Here's a tip from the U.S. Department of Agriculture's Consumer and Marketing Service: Canned tomatoes are usually packed and priced according to their quality or grade. Top quality—Grade A or Fancy—has mostly whole or large pieces, good red color, is tender and flavorful, and is practically free from defects. Grade B rates next in flavor and appearance. Grade C, which may have a yellowish-red color and mostly broken pieces, is a thrifty buy for use in stews or casseroles. If the grade is not shown on the label, try different brands to find the quality you like. □

WHO RULES YOUR DIET?

—A child's diet is ruled by his mother.

"Eat that vegetable, or you won't get any dessert!"

—A teenager's by the local snack shop.

"Make that a double banana split."

—A husband's by his bus schedule.

"Forget breakfast; no time. Just hand me a strong cup of coffee."

—But if you are poor, your diet is ruled by money.

Hopefully, the child, the teenager and the husband will have a mother or wife who sees that her family gets good nutrition in spite of all obstacles. But if money rules your diet, then there is no way to fill in the gap.

That is, there isn't if your family is not getting the help offered through the U.S. Department of Agriculture's Food and Nutrition Service. USDA, in addition to its Food Stamp Program, offers a Commodity Distribution Program which makes nutritious foods available to needy families. The foods for this program are purchased by USDA's Consumer and Marketing Service and Agricultural Stabilization and Conservation Service under the authority of a law known familiarly as "Section 32" (actually, Section 32 of Public Law 74-320).

USDA carefully screens foods to find those which are high in nutritive value and will add the necessary elements to the diets of needy persons. The program recognizes the needs of children, teenagers, husbands, and mothers alike. There are more than 30 different foods offered to States under this program. In counties or cities that make all of these foods available, the foods can meet almost 100% of most dietary needs.

Whew! Those foods sound almost as exciting as a diet of carrot juice and sunflower seeds, you think.

Wrong! Take the example of Mrs. Douglas and the food that the C&MS Poultry Division alone purchases for the use of her and her family.

Mrs. Douglas and her husband are in their mid-thirties. They have a

boy eleven years old and a girl eight years old. Mrs. Douglas has just picked up her USDA food package for the month and she finds in it, among other foods, a 29-ounce can of boned turkey. There is also a 12-ounce can of the newly developed dried scrambled egg mix.

To some people these foods may not sound any more tasty than sunflower seeds and carrot juice. But these foods must be provided in non-perishable form, for Mrs. Douglas, like many of her neighbors, does not have a refrigerator. And, actually, they are very high-quality foods with many exciting possibilities.

For instance, the canned boned poultry can be transformed into a salad or a sandwich. With a little heat and different seasonings, it is also excellent creamed, in soups, in stews, served with gravy, or in a casserole.

As for the dried scrambled egg mix, it is time that a 30-year-old prejudice swiftly died. During World War II, dried eggs were used to feed

troops. But the scrambled eggs made from that product, which former GI's still remember with distaste, bear little relation to today's product. The scrambled egg mix of today has been modernized as much as the rocket in the same period of time. It contains 51% whole egg solids, 30% non-fat dry milk solids, 19% vegetable oil, and salt. A quarter of a cup of this product mixed with an equal amount of water gives the equivalent of one shell egg. The mix is easy to use in making scrambled eggs alone, or it can contribute to more exotic breakfasts such as french toast, pancakes, or muffins. It can also be used for dinner in a meat loaf, cornbread, cake, or baked custard. But best of all, when used as plain old scrambled eggs, it really tastes good.

All of the products Mrs. Douglas receives are carefully inspected under USDA supervision. The canned boned turkey is not only inspected for wholesomeness, but it must also be of USDA Grade B quality or better. The scrambled egg mix, too, is produced in plants under continuous USDA inspection, and tested in USDA laboratories.

The emphasis of the purchase program today is on the needs of hungry people. Foods are first selected for their food value to aid in improving the diets of recipients. For instance, canned boned poultry is an excellent source of high quality protein, and also supplies iron, thiamin, riboflavin, and niacin, while the scrambled egg mix provides high-quality protein, iron, vitamin A, riboflavin, and calcium as well.

However, USDA still plays the role of the conscientious food shopper. It tries to plan its purchases so that they will correspond with the seasonally low prices in a desired commodity. Thus USDA serves the dual purpose of aiding farmers as well as meeting a commitment to the needy.

"Can't eat, Ma! The big game's this afternoon!" wails Mrs. Douglas' young son as he dashes out the door. But Mrs. Douglas isn't worried. She knows she can now help make up for those missed foods at dinner. □

POULTRY & EGGS EASE HUNGER PAINS





ON LONG ISLAND, in New York State, Nassau County is waging an active war on hunger. It's a war in which progress is being made on all fronts.

Thirty-two full-time distribution centers have been put into operation. In less than 6 months, participation in the Food Donation Program has more than doubled. And the program also has made twice as many foods available from commodities donated by the USDA's Food and Nutrition Service.

Plans were initially drawn up last March, when County Executive Eugene H. Nickerson recognized the urgent need to improve the existing food program. Nickerson and other County officials knew that ways would have to be found to get more commodities to many eligible people who were not benefiting from the program. They realized that in many cases, people were required to travel great distances to get to a food distribution center and then had to make their way back with all the food for one month's supply.

The County entered into a contract with the Long Island People's Association to operate the Food Donation Program. Under the agreement, the County provides the funds, and the association the manpower.

In order to reach as many eligible families as possible, it was quickly decided to establish a chain of store front distribution centers throughout the area. The County leased 32

stores in 31 different communities. These store-front distribution centers are open daily and recipients can come as often as they wish.

The LIPA hired 105 people, of whom 87 had previously been on the public assistance rolls. Three workers were assigned to each store, the remainder to administrative and shipping chores.

The County assisted in streamlining bookkeeping and inventory control through the use of IBM punch cards. Under this computerized system, eligible persons are mailed a card each month listing the kinds and amount of foods they may receive as well as the store at which they may pick it up.

Through the use of this computerized system, the warehouse can immediately determine the inventory needs of each store. Should one of them run out of a commodity, the warehouse can replenish the supply of any store in less than 40 minutes.

"We have been very pleased with the progress we have made so far," commented W. J. Boyd, Deputy Director for Administration of the County's Department of Social Services. "We have brought the commodities to the communities and have substantially increased the types of foods that are available. These include such items as butter, cheese, scrambled egg mix, grapefruit juice, lard/shortening, canned chopped meat, evaporated milk, nonfat dry milk, tomato juice, canned pork, canned turkey, canned

beef and canned corn.

"Our distribution centers are so located that no participant is more than a mile away from a center. We feel that this is very important in a County where public transportation is at a minimum.

"Before this program began, less than 5,000 families received foods, out of a total of 15,000 public assistance families who are eligible. Now that figure exceeds 10,000 families. We hope to increase that to 12,000 to 15,000 in the coming months. This increase would include many low-income families that do not receive public assistance."

Mr. Boyd also said that many people living on fixed incomes, such as social security and pensions, qualify for the donated foods.

In addition to providing more food to those who need it in the County, the recent program innovations have had a number of side benefits. Mr. Carroll Belt, Director of the LIPA, pointed out: "In having taken about 90 people off the welfare rolls and put them on our payroll, we have not only provided employment for them but also training that will help them go on to better paying jobs. So far, two of our employees have located such positions. One has a managerial job with a supermarket chain, while the other obtained a civil service position with the Post Office.

"Most of our employees are mothers with dependent children. They are placed in stores in their own neighborhoods. Our goal is to have two women clerks and a man to do the heavy lifting in each store. We have no educational requirements for the jobs.

"Before we place our people in the stores, we give them 2 weeks of intensive training in store management procedures as well as in nutrition. The Nassau County program not only distributes the foods—it helps show recipients how to use them. One of its staff members is a dietician who makes presentations in the various communities of the County on a regular basis."

The Food Donation Program, it is estimated, could eventually provide food help to 50,000 individuals in Nassau County. □



Growing with Good Food Habits

“REMEMBER THAT OLD green stuff I hate? I ate it all today.”

The little preschool boy in Dayton, Ohio, had learned to eat and appreciate another nutritious food while attending one of the day care centers participating in the U.S. Department of Agriculture's Special Food Service Program for Children.

USDA's Food and Nutrition Service administers this child feeding program which has grown substantially since the first pilot program began in Gary, Indiana, on October 31, 1968. At the end of the first year of operation last October, approximately 138,500 preschool children were attending 2,035 day care centers across the country.

This program was designed to safeguard the health and well-being of the Nation's children by reimbursing public and nonprofit private nonresidential institutions such as day care centers, settlement houses and recreation centers, for the food they buy. Children from low-income areas and from areas with high concentrations of working mothers became eligible to participate in the program.

When the Miami Valley day care center program in Dayton, Ohio, was about to close in the fall of 1968 due to lack of funds, more than 2,000

letters poured in asking that the program be continued. The officials had no recourse because of an overall reduction in funds available to it.

The director of the program then began a long but successful campaign to raise the funds necessary to keep the centers open. The community was quick to respond to pleas for support. Children collected and sold soft drink bottles. Mothers held cookie and cake sales. These activities plus donations from church groups, labor organizations, businesses and individuals raised over \$13,000. United Fund also pledged monies and the U.S. Department of Agriculture approved a request for participation in the newly launched Special Food Service Program.

Mothers in training programs and those who accepted jobs because day care was available were particularly pleased that the centers could continue operating.

There was never any question of eligibility as far as the center was concerned. Ninety-six percent of the children in attendance were from low-income families. Most of them were not getting adequate diets and were unfamiliar with many nutritious foods that other Americans consider basic in their diet.

The new food service program has been widely accepted and has proved its value. Last summer, for example, many major cities for the first time operated extensive recreation programs that provided lunches or nutritious between-meal snacks for nearly 200,000 children in their low-income neighborhoods. Since cities in various parts of the country operated their recreation programs differently, the feeding programs ranged from hot or cold noon lunches and/or nutritious mid-morning or mid-afternoon snacks. Generally, cities used individual school cafeterias and central kitchens to prepare and pack lunches for distribution to playgrounds that had no operating kitchen facilities.

Washington, D.C.'s summer recreation program peaked with over 40,000 youngsters eating lunches at the neighborhood school cafeterias each weekday at noon. Another city in the Northeast, Newark, N.J., operated a feeding program for 25,000 youngsters.

Other major cities throughout the country that have been operating summer feeding programs are Atlanta, West Palm Beach, Fla., Detroit, Chicago, Houston, San Antonio, New Orleans, Denver, Tulsa, Oklahoma, Sacramento, and Portland. □



Secretary Hardin Enjoys a School Lunch

THE NATIONAL SCHOOL Lunch Program is directing a major effort to provide 3,600,000 more needy school children with free or reduced price lunches at school this year. Last school year the program served free or reduced price lunches to 3 million needy youngsters. This was 15% of the 20 million children served under the National School Lunch Program. The aim this year is to reach 6.6 million needy children with free or reduced price

lunches by the end of November.

Secretary of Agriculture Clifford M. Hardin, as a highlight of National School Lunch Week activities last October, visited the Shenandoah Elementary School in Miami. The menu and decorations for the week in the lunchroom were in a Western theme to carry out the National School Lunch Program's policy of introducing children to new and different nutritious foods that they might enjoy eating.

Dairy Plant Surveys on the Rise

QUARTERLY SURVEYS OF nonfat dry milk plants and semi-annual inspections of butter, Cheddar cheese, evaporated and sweetened condensed milk plants. Sounds like a big job, doesn't it? It is—and the job is getting bigger for inspection and grading personnel in the Dairy Division of the U.S. Department of Agriculture's Consumer and Marketing Service. Last fiscal year, for example, Dairy Division personnel performed 5,400 separate inspections of dairy plants, compared with 3,800 inspections five years ago.

Official plant approval—consisting of some 100 checks for sanitation and manufacturing practices—is a

prerequisite to USDA grading of dairy products. The USDA grade shield on packages of nonfat dry milk, butter, and Cheddar cheese means the product is of high quality and was produced under modern, sanitary conditions.

The names of approved plants are carried in a special publication, "Dairy Plants Surveyed and Approved for USDA Grading Service." To make the listing as current as possible, the publication is now being issued on a quarterly rather than a semi-annual basis. Many large-scale food buyers use the list as a guide to sources of dependable, high-quality products. □

College Girl Proves Butter Expert

FOR THE FIRST TIME in 22 years, a girl has won one of the top prizes in the annual Collegiate Dairy Products Evaluation Contest. Donna Kinney of the University of Illinois was rated the best of the college students in judging the quality of butter, one of five dairy products competing students must evaluate.

Top-ranking team in the contest, held in New Orleans recently, was South Dakota State University. Eighteen student teams participated.

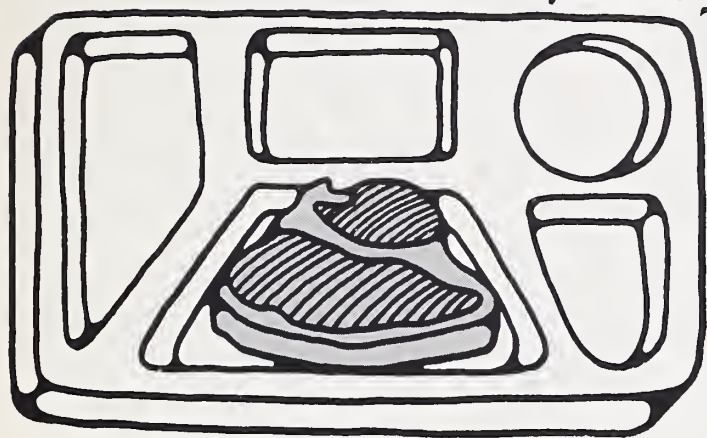
Purpose of the contest, sponsored by the dairy industry and supervised by the Dairy Division of the U.S. Department of Agriculture's Consumer and Marketing Service, is to interest young men and women in careers in the food and dairy industry or in research (AGRICULTURAL MARKETING, July 1969). The contest involves the judging of pre-rated samples of butter, milk, ice cream, Cheddar cheese, and cottage cheese. Students use their five senses to judge the quality of these dairy products and rely on quality specifications, such as those established by C&MS' Dairy Division for butter and Cheddar cheese. □

Plentiful Foods for February

Fresh oranges and orange products, and fresh grapefruit head the U.S. Department of Agriculture's Consumer and Marketing Service's Plentiful Foods List for February shoppers.

Other plentifuls are apples, broiler-fryers, fresh potatoes, canned tomatoes and tomato products, and canned and frozen corn. □

Beefsteaks Tailor-Made for Volume Feeders



IF YOUR JOB OR BUSINESS calls for substantial air travel throughout the country, you may have noticed that on several occasions you have been served a tender, high-quality steak that's virtually an exact replica of steaks you've enjoyed on previous trips. The size and the quality are so much alike it's almost as though they're tailor-made.

This unerring duplication isn't a matter of chance. It's planned that way and accomplished through a unique service of the Meat Grading Branch of the U.S. Department of Agriculture's Consumer and Marketing Service.

The Acceptance Service, as it's called, sees to it that the airline—or hotel, steamship line, hospital, restaurant or other volume feeding operation—gets exactly what it wants, whether it's quality, weight, trim, thickness, or all of them. This service eliminates the necessity of a personal inspection for many institutional users of substantial quantities of meat products.

The Acceptance Service user sets up his orders on the basis of Institutional Meat Purchase Specifications (IMPS), and, for a nominal fee, a skilled USDA grader is assigned to see that the buyer's purchases meet those specifications. IMPS are developed by the C&MS Livestock Division in cooperation with industry representatives.

Among the airlines who insist on

getting their beef exactly as they want it, United Air Lines is a good example.

United Air Lines requires portion-control products. For instance, on short-haul flights from New York to Chicago, 5-ounce tenderloin steaks are served, but on the Red Carpet flight from New York to San Francisco, United uses a 6-ounce tenderloin steak.

While the meat is being cut, the USDA grader makes sure that the steaks weigh 5 or 6 ounces, are of U.S. Choice Grade, and trimmed to no more than $\frac{1}{4}$ inch of fat.

United Air Lines has been a customer of the Acceptance Service for the past 3 years.

William Dubacher, chef of United's flight kitchen at Kennedy International Airport says, "The service is a big help. It has provided a standardized method of buying meat."

Mr. Dubacher estimated that in a 2-week period on flights out of Kennedy Airport, an average of about 2,000 6-ounce tenderloin steaks, 2,000 to 2,500 8-ounce sirloin steaks, and 500 7-ounce sirloin steaks are served.

Before employing the service, United had their own employees "accept" the meat. This led to complaints from some passengers that their steaks were smaller than someone else's. Mr. Dubacher said that the Acceptance Service, together

with the use of the Institutional Meat Purchase "Specs," eliminated that problem.

A newcomer to the Meat Acceptance Service, the Hilton International, has used the service for the past 10 months for Hilton Hotels located in Amsterdam, Bangkok, Brussels, Hong Kong, Manila and Paris.

Unlike United Air Lines, the Hilton International purchases whole cuts of beef to be shipped abroad, but their purchases are also based on Institutional Meat Purchase Specifications. In addition, they specify how the meats are to be packed for shipping.

The restaurants in these hotels feature American beef which Hans Franke, assistant director of the Hilton International, says, "... is the best beef in the world."

Mr. Franke added, "We are very satisfied with the Meat Acceptance Service. This service is an assurance that the USDA meat graders are checking on our particular meat specifications, which are dictated by either a definite merchandising program, or by shipping tariffs, problems, and logistics."

"USDA," he says, "is doing an excellent job."

If you'd like more information about the Meat Acceptance Service, address your inquiry to the Livestock Division, C&MS, USDA, Washington, D.C. 20250. □

HOW DOES THE U.S. Department of Agriculture decide what to recommend with respect to a proposed milk order action after a public hearing has been held on it?

Once the recommended decision has been issued, can it be reversed, or altered in part?

Why are some proposals recommended for adoption, and others are not?

Why are some decisions longer in the making than others?

These and other questions are sometimes asked by dairy farmers, milk dealers, and others concerned with the marketing of milk under Federal orders. They generally know

that the recommended decision is the next step after a public hearing to establish or amend a Federal milk marketing order. But many of them would like to know more about the actual decision making.

A Federal milk order provides different classes and prices to farmers for milk in different uses. Usually, milk used in fluid products is priced in Class I, the highest priced class. Other, lower priced use-classes are also provided in the order, and milk dealers are required to pay at least the order prices for all the milk they use. Then all producers who sell milk to a particular handler are paid on the basis of a uniform, or average price, representing the aggregate market-wide value of their milk.

This leads to more stable, orderly marketing conditions for both dairy farmers and dealers, and helps keep a smooth flow of fresh milk available for consumers' needs.

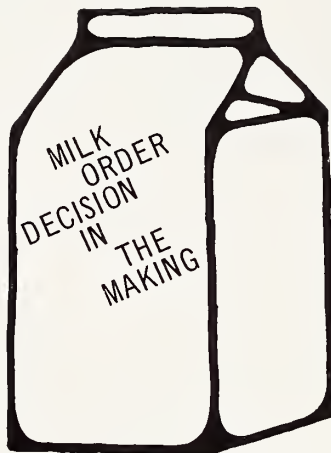
But in the fast-moving dairy industry new marketing situations can develop, and anyone may propose compensating changes in a Federal milk order, or may propose a whole new order for a previously unregulated area. Hearings are held on such matters by the U.S. Department of Agriculture at the request of individuals or organized groups, to provide a factual basis—the hearing record—on which to decide

what, if any, action should be taken. The recommended decision must be based on the factual evidence contained in the hearing record.

What kind of facts make good evidence for the record?

They must directly concern the marketing of milk in the area being considered. They must be facts affecting dairy farmers, milk dealers, and indirectly, the consumers.

Take a proposed merger of two milk orders, for instance. Why would USDA recommend it?



By John R. Hanson

It might be because the evidence in the hearing record shows that two adjacent marketing areas now regulated by two separate orders with different provisions over a period of time have become in fact a single trading area in which the same milk dealers compete throughout for the fluid milk sales of the two previously separate markets. Because of such development, orderly marketing of milk may no longer prevail and may not be maintained under separate orders. There may no longer be a smooth flow of milk through channels on its way to consumers, or an appropriate distribution of returns to all the producers.

Would it be better to merge the two marketing areas under one order with uniform provisions?

Again, USDA relies on facts in the hearing record in recommending for or against a proposed action.

The length of time ensuing between the close of a milk order hearing and issuance of the recommended decision, along with a pro-

posed new or amended order, varies depending on the complexity of the issues involved, and the time interested persons require to file their briefs on the evidence.

The recommended, or tentative, decision is published in the Federal Register and announced generally through newspapers, radio, television, and trade press. A period of time, usually 15 days, is allowed for interested persons to take exception to the recommendations or to submit comments in favor of them.

Since the recommended decision is tentative, it may still be changed in the light of the public comments

filed in writing. But any such comments will bear weight only if they relate to the actual hearing evidence. No new facts may be introduced in such comments.

Once the recommended decision has been issued and the period for exceptions to the decision is over, marketing specialists in the Dairy Division of USDA's Consumer and Marketing Service look to the next step in any proposed milk order action. They carefully consider all exceptions and comments in relation to the evidence in the hearing record to determine what the final recommendations to the Secretary should be.

Termed a "final decision," such recommendations then are published and arrangements are made for an expression of approval or disapproval by dairy farmers affected. Sometimes a referendum is held. At other times, approval by farmers may be determined by polling their cooperative associations.

To become a reality, a proposed milk order action must have the approval of the milk producers. If a referendum is held, approval is measured on the basis of the number of farmers actually casting ballots either individually or through cooperative associations. □

*The author is Deputy Director,
Dairy Division, C&MS, USDA.*

“DO UNTO OTHERS AS YOU would have them do unto you,” is a Biblical maxim that applies equally well in many situations. It applies to fruit and vegetable marketing orders.

American farmers and handlers over the years have cooperated under marketing agreement and order programs to improve their marketing position. Many restrict their shipments to only their better quality products in order to build consumer confidence and better markets.

When American producers are bettering their crops to build markets, it becomes necessary to require imports to meet the same quality standards as domestic shipments.

Congress realized this need and in 1954, passed what has become known as the “Golden Rule Amendment” to the Agricultural Marketing Agreement Act.

The “Golden Rule Amendment” states that whenever domestic shipments of a certain commodity are regulated by grade, size, quality and maturity under a Federal marketing order, then imports of that commodity must be so regulated, too. The U.S. Department of Agriculture has the job of issuing regulations on the imported shipments that are the same, or comparable, to the requirements set up for domestic shipments.

The “Golden Rule Amendment” lists 13 perishable agricultural commodities that can be subject to import regulation. Imports of avocados, dates, grapefruit, Irish potatoes, limes, onions, oranges, tomatoes, and walnuts are currently regulated. Mangoes, eggplant, cucumbers, and green peppers also are subject to import regulations, but at present, no domestic shipments are being regulated and no import restrictions are placed on them.

Sometimes marketing orders are in effect which regulate the same commodity from more than one area. If the areas have different regulations, the import regulations are tied to the domestic regulations in effect for the area with which the imports compete most directly.

Most marketing agreement and order programs have provisions to

marketing orders follow golden rule



By Paul Nicholson

maintain quality by keeping inferior grades or less desirable sizes of a commodity off the market.

The standards are developed by the commodity industries concerned, with the advice of marketing specialists in USDA's Consumer and Marketing Service. After they are issued by USDA, the regulations apply to shipments of the commodity grown in the entire area covered by a marketing order program.

Quality regulations benefit imported as well as domestic commodities. The same economic factors that work for American farmers

work for foreign producers as well. If the market is favorable for domestic produce it will be good for imports, too.

For the first time, in 1968, U.S. imports of fruits, vegetables and other horticultural products exceeded exports. Imports totaled \$442.4 million while exports amounted to \$438.9 million. Imports included large volumes of tomatoes, melons, strawberries, peppers and cucumbers from Mexico, potatoes from Canada, and oranges from Israel.

Early in 1969, the Florida tomato growers were faced with a declining market. In order to relieve the situation, they established grade and size requirements that would permit only larger tomatoes to be shipped to markets. The size requirement was changed several times during the shipping season in attempts to cope with the fluctuating market.

The larger quantities of tomatoes which were being shipped into this country from Mexico were also required to meet the same standards as the Florida tomatoes marketed under the order.

The action taken to bolster returns to Florida producers also benefited Mexican producers. Prices for both Florida and Mexican tomatoes averaged higher during the 1968-69 shipping season than the previous year when there were no regulations in effect. Also, Mexican imports were record-large in the 1968-69 season.

The official bulletin of the Sonora Agricultural Association said the economic results of the tomato import regulations were “very favorable for Mexico.” Sonora is the major tomato-growing State in Mexico.

The “Golden Rule” regulates quality and not volume. Rather than limiting supplies to consumers, quality regulations make certain that poor quality produce doesn't drive customers away or depress prices for growers. By establishing a reputation for quality fruit and vegetables, the industry can establish a better market for produce. □

The author is Deputy Director, Fruit and Vegetable Division, C&MS, USDA.



Trained Inspectors Protect You

By Dr. Donald L. Houston

WHEN YOU BUY A BEEF roast or leg of lamb, you feel confident that you and your family will have a wholesome meal. But it's up to the inspectors of the U.S. Department of Agriculture's Consumer and Marketing Service to see to it that meat sold across State lines is safe to eat when it leaves the plant.

What kind of person is a meat inspector?

Where does he get his know-how?

And what about meat that's not federally inspected?

Meat inspectors are men and women who are highly trained, many of whom are veterinarians. But like all specialists, these people need specific training.

In four USDA Training Centers located around the country, all new Federal meat inspectors learn the basics of red meat inspection. In Omaha, Los Angeles, St. Paul, and Fort Worth, inspectors receive the specialized training which helps them protect you.

Since the passage of the Wholesome Meat Act of 1967, the States are developing and strengthening their own systems of inspection for meat products processed and sold

solely from within their boundaries. Three States already equal the current status of Federal inspection. Other State systems will match the Federal system by providing for the same strict standards of before-and-after slaughter inspection and sanitary plant operation.

One way these other States are approaching satisfactory systems of inspection is by training their inspectors too. C&MS is supplying financial, technical and laboratory help to the States and part of that assistance is in the training of State inspectors. Since the passage of the act, almost 1,000 State inspectors have been trained alongside USDA inspectors at the training sites.

The beginning nonprofessional trainee, either State or Federal, receives instruction in the basic procedures related to before-and-after slaughter inspection of livestock. He learns techniques of beef, swine, and sheep inspection in 4 weeks. He is also made very aware of the sanitation responsibilities of his new job. And he is introduced to requirements of labeling, marking and branding, and shipping and receiving.

The training received in these

sessions is supplemented by work in packing houses, where an experienced inspector supervises the trainee. A 4-week course doesn't produce a qualified inspector but it gives him the necessary background to learn more about his trade.

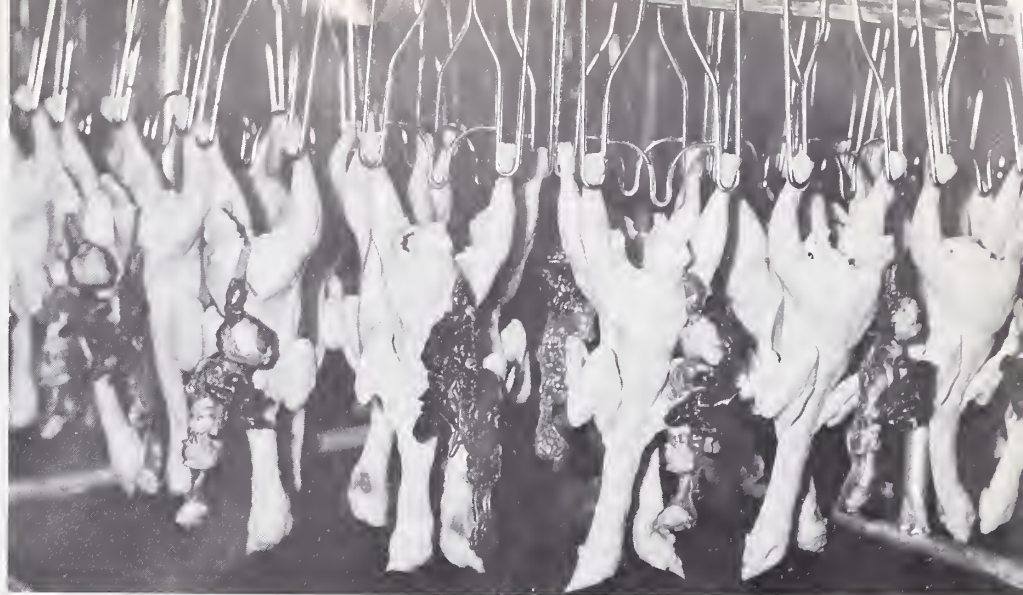
Training sessions for the new veterinarians may last up to 12 weeks, and include a detailed study of the dispositions of carcasses and parts for human food.

Meat inspectors are concerned mainly with detecting abnormalities in carcasses. When a diseased animal requires further examination, the veterinary medical officer in charge is responsible for the final disposition of the animal, carcass, or carcass part. But the meat inspector must know how to inspect the carcass and parts to enable him to recognize any abnormalities.

The inspection program, administered by the Consumer and Marketing Service, is designed to protect you—the consumer. And thorough training of all inspectors is a vital part of that protection. □

The author is the Director of Consumer Protection Programs Services Staff, C&MS, USDA.

are Plastic Chickens coming of age?



Plastic chickens move along conveyor line in Gainesville, Ga., facility.

WILL PLASTIC CHICKENS ever replace real ones?

It's already happened in Gainesville, Georgia, at the U.S. Department of Agriculture's national poultry slaughter inspection training center.

But the birds aren't destined for the Nation's dinner tables. Moving realistically along on a simulated eviscerating line, these plastic birds are strictly for training purposes. They're used to give inspection trainees a visual picture of poultry moving along a conveyor line.

Use of the simulated eviscerating line in the training center helps to instruct trainees in recognizing differences between normal and abnormal birds, and it also teaches them the most efficient ways to handle and inspect fresh poultry

carcasses during evisceration.

Both Federal and State inspectors who receive training at the center will have to use this training once they're stationed in actual operating eviscerating plants. Sometimes the eviscerating lines run 20 birds a minute, and the inspector must make the "to pass, or not to pass" decision for each bird.

It's during evisceration that key after-slaughter inspection is made of poultry, though the birds are also examined before slaughter for evidence of disease. Inspection continues beyond slaughter and evisceration all the way through processing and packaging to the labeling of the finished product.

Supplementing the visual aids used by the training center's instructors are actual specimens of both

normal and diseased poultry. And the trainees are taken to operating eviscerating plants to observe firsthand how processing operations are performed and to observe and practice inspection techniques.

Dr. Slade Exley, veterinarian-in-charge of the center, and his staff have had their hands full since the facility opened in the summer of 1969. "We put some 200 trainees through the course during the first six months the center was in operation," Dr. Exley says.

"And," he adds, "in view of the rising demand for well-trained poultry inspectors and veterinary inspectors as the Wholesome Poultry Products Act of 1968 is being implemented at both Federal and State levels, the center will be a real asset in the training job ahead." □

These chickens are real, and the inspector is well trained for critical judgments.



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CLIFFORD M. HARDIN
Secretary of Agriculture

ROY W. LENNARTSON, Administrator
Consumer and Marketing Service

EDWARD J. HEKMAN, Administrator
Food and Nutrition Service

Acting Editor, Bonnie W. Pok
Editorial Assistant, M. Jane Phillips

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